



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/620,318

07/14/2003

Paul V. Cooper

23438.00041

7946

23619

7590

10/16/2008

SQUIRE SANDERS & DEMPSEY LLP

TWO RENAISSANCE SQUARE, 40 NORTH CENTRAL AVENUE

SUITE 2700

PHOENIX, AZ 85004-4498

EXAMINER

KASTLER, SCOTT R

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

10/16/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/620,318

**Applicant(s)**

COOPER, PAUL V.

**Examiner**

Scott Kastler

**Art Unit**

1793

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 14, 16-26, 38 and 39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14, 16-26, 38 and 39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 21, 22, 26 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mordue'467. Mordue'467 teaches a rotary degasser including a coupling (44) with proximal (54) and distal (56) ends where the distal end is tapered and not threaded, including a bore therethrough which is smooth and could be employed for transferring gas, as well as apertures for tool insertion (see col. 7, lines 5-15 for example) thereby showing all aspects of the above claims except the instantly recited bore shape. However, since no new or unexpected results have yet been shown, in proper affidavit or declarative form to arise from the use of any desired bore shape, motivation to alter the bore shape of Mordue'467 to any other equally useful bore shape would have been a modification obvious to one of ordinary skill in the art at the time the invention was made. See MPEP 2144.04 IV B.

Claims 14, 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ecklesdafer'652. Ecklesdafer'652 teaches a coupling (3) with proximal and distal ends where the distal end is tapered and not threaded, including a bore therethrough which is smooth and could be employed for transferring gas, since that manner or method of use of an apparatus cannot be relied upon to fairly further limit claims to the apparatus itself (see MPEP 2114) thereby showing

all aspects of the above claims except the instantly recited bore shape. However, since no new or unexpected results have yet been shown, in proper affidavit or declarative form to arise from the use of any desired bore shape, motivation to alter the bore shape of Mordue'467 to any other equally useful bore shape would have been a modification obvious to one of ordinary skill in the art at the time the invention was made. See MPEP 2144.04 IV B.

Claims 21, 22 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mordue et al'247. Mordue et al'247 teaches a rotary degasser (1 in Figures 1 and 2) including a coupling (21) with a proximal and non-threaded, tapered distal end with a smooth bore therein which can allow gas transfer, thereby showing all aspects of the above claims except the instantly recited bore shape. However, since no new or unexpected results have yet been shown, in proper affidavit or declarative form to arise from the use of any desired bore shape, motivation to alter the bore shape of Mordue'467 to any other equally useful bore shape would have been a modification obvious to one of ordinary skill in the art at the time the invention was made. See MPEP 2144.04 IV B.

Claims 14, 17, 19, 21, 22 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooper'074. teaches a rotary degasser (10) including a coupling (38) with a proximal (44) and non-threaded, tapered distal (42) end with a smooth bore therein which can allow gas transfer, thereby showing all aspects of the above claims except the instantly recited bore shape. However, since no new or unexpected results have yet been shown, in proper

affidavit or declarative form to arise from the use of any desired bore shape, motivation to alter the bore shape of Mordue'467 to any other equally useful bore shape would have been a modification obvious to one of ordinary skill in the art at the time the invention was made. See MPEP 2144.04 IV B.

Claims 15, 16, 18, 20, 23, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Either of Mordue et al'247 or Cooper'074 as applied to claims 14 and 21 above, in view of Howie et al and the admitted prior art of the instant disclosure. As applied above, each of Mordue'247 and Cooper'074 show couplings and rotary degassers showing all aspects of the above claims except the specific use of a "course" threaded proximal end, stainless steel as the coupling material, or the inclusion of a counterweight on the coupling, although each of Mordue et al'247 and Cooper'074 allow for the use of any desired material for the coupling construction and allow for the use of a threaded proximal end. Howie et al teaches that at the time the invention was made, it was known in the art to both employ a coupling device (65, 63) for the connection of shaft components in a rotary molten metal device, which includes a tapered, non-threaded end (65) and a threaded end (63) where the threads may be considered "course", as well as constructing the components from stainless steel (see col. 5 lines 10-40 for example). Because each of Mordue et al'247 and Cooper'074 would require some type of material for the construction of the disclosed couplings as well as some connection means to be employed in the proximal ends of the couplings, motivation to employ commonly known connections and materials, as taught by Howie et al, would have been a modification obvious to one of ordinary skill in the art at the time the invention was made.

The admitted prior art of the instant disclosure, at paragraph [0053] for example, teaches that counterweights were known to be employed in couplings for use in rotary degassers in order to improve performance. Because improved performance would also be desirable in the couplings of each of Mordue et al'247 and Cooper'074, motivation to include a counterweight as taught by the admitted prior art of the instant disclosure would have been a modification obvious to one of ordinary skill in the art at the time the invention was made.

#### ***Response to Arguments***

Applicant's arguments filed on 7/14/2008 have been fully considered but they are not persuasive. Applicant's argument that none of the references recite bores through the couplings which are either threaded or non-threaded rather than the couplings themselves is not persuasive because the outer portions of the bores are part of the bore also. Applicant's further argument that a showing of new or unexpected result arising from expressed new or unexpected results are not required since these results are stated in the specification is not persuasive because as stated previously, mere statement of new or unexpected results unsupported by comparative evidence is not sufficient to establish new or unexpected results.

Applicant's argument that Mordue'467 does not teach the use of an end with threads is not persuasive because the claims rejected over Mordue'467 do not require the use of threads.

Applicant's argument that the coupling of Ecklesdafer is not employed for the same purpose as that instantly claimed is not persuasive because the manner or method of use of an apparatus cannot be relied upon to fairly limit claims to the apparatus itself. See MPEP 2114.

Applicant's arguments with respect to Morduc'247 are not persuasive because again the claims rejected do not require a threaded end.

Applicant's argument that Cooper'074 does not include a threaded end because it prefers not to employ threads is not persuasive because a reference is not limited to it's preferred embodiments in what it teaches.

Finally, Applicant's argument that Howie cannot be relied upon to remedy the argued deficiencies of the above references because Howie is directed to non-analogous art is not persuasive because Howie is directed to the connection of shaft components which is exactly the field of endeavor in which the couplings of the other applied art is directed.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Kastler whose telephone number is (571) 272-1243. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Scott Kastler/  
Primary Examiner, Art Unit 1793

sk